

8.1 Introduction

This chapter provides a financial plan for implementation of the Transportation Master Plan. Needs, revenues and program levels are forecast and described. Funding policies are found at the front of the chapter.

The TMP Update provides financial programs for two timeframes:

- a 6-year program corresponding with the City's Capital Improvements Program for the years 1996 through 2001; and,
- a 25-year needs-based program for the years 1996 through 2020 to correspond with the TMP forecast period.

The 6-year CIP expenditure plan is balanced to actual forecast revenues. Thus it assumes no major new source of transportation revenues. The 25-year program on the other hand is a "needs" plan which has not been constrained to revenues. It provides a basis for analyzing transportation funding requirements and program priorities.

8.2 Special Note: Growth Issues

The 1989 TMP established a policy base which allocated transportation needs between:

- (1) modifications to the existing system which were to be funded from the Transportation Fund; and,
- (2) system expansions required as a result of community growth, which were to be funded from the Transportation Improvement Fund - now the Transportation Excise Tax Fund.

The TMP determined that a portion of system expansion needs were due to increased travel by current residents and included that in the first category above. The distinction between

existing system and growth needs was carried to the project level (1989 TMP Tables 2.5 and 2.6) for roadway projects only.

That approach worked well given a policy that increased traffic would be accommodated. However, this TMP Update adopts a policy that traffic should not increase and is designed to put in place programs that would prevent traffic increases. Over the next 25 years it will still be appropriate to think in terms of two categories of needs: those that already exist or that are caused by increased travel by existing residents; and, those that are caused by growth.

However, if this Plan succeeds, it will no longer be appropriate to estimate the amount of the "growth" category based on the cost of roadway system expansion. This Plan does not contain significant roadway expansion. Instead, it provides for investments in bicycle, pedestrian and transit systems and in roadway projects that would benefit motor vehicles using the existing street system.

For this plan to work, the distinction between "existing system" and "growth" needs will have to be revisited. An important "excise tax study" will be undertaken by the City in 1996. The TMP Update provides the following policy guidance for that effort:

- A. "Growth" needs shall include all modes. The basis for estimating the amount of transportation needs associated with development projects shall be the full range of pedestrian, bicycle, transit and motor vehicle needs.
- B. "Growth" needs shall include more than capital costs. In the future, the City will place increased reliance on spending strategies that include demand management programs and transit operations. A portion of these needs are directly attributable to growth and should be funded accordingly.

8.3 Transportation Needs Analysis

The staff of the Transportation Division has prepared an exhaustive analysis of current and future transportation needs in Boulder. The specific categories of needs are:

(1) Routine Street Maintenance and Repair

This category includes regular, recurring maintenance such as pothole patching, chip & seal street surfacing and crack sealing. It does not include snow removal, street sweeping, bikeway maintenance and median maintenance (funded in the operations base described below). Major street reconstruction and resurfacing are included in (4) below.

(2) Bikeways and Greenways Capital Maintenance

This includes capital repairs and reconstruction of existing bikeways and paths. Some of these needs are preventive maintenance that would eventually save long-term costs. Over time, existing multi-use paths will age and require reinvestment. This has not, in the past, been included as a capital planning item, but should be, because it will eventually be a real cost.

(3) Pedestrian Facility Capital Maintenance

This category includes costs of maintaining existing sidewalks and pedestrian facilities. Major needs are: installing ADA-compliant ramps, repairing sidewalks (“toe-trips”), replacing sidewalks as they wear out, and replacing substandard or missing railings. Section 6.1 describes these needs in more detail.

(4) Street-Related Capital Maintenance

Included here are capital maintenance and rehabilitation projects required to protect public investment in existing streets. Curb and gutter replacement, major resurfacing (not chip seal), alley projects, and concrete intersections are covered here.

Also included are replacement of structurally-

deficient bridges and street reconstruction. The City estimates it will need to replace six major and up to 50 minor bridges over the next 25 years due to the effects of time and wear.

(5) Street-Related Construction

These projects address functional deficiencies on existing streets such as intersection configuration, bridge widening, median upgrades, street lights, traffic signals, and improving rural-design streets to urban sections with drainage.

Not included are new alignment roadways, new through-lanes and interchanges.

Chapter 7 outlines a list of improvements needed, primarily in multimodal corridors, to maintain efficiency and reduce conflicts for all modes using these important streets.

The projects needed in this category are based on Scenario D traffic forecasts. Most of the functional deficiencies that need attention are already deficient. This line item would be many times larger - perhaps two to three times as large - under Scenario A or B.

(6) Bicycle Lanes and Bikeways

These projects provide new on-street and off-street bicycle facilities. This category, then, represents increased functional capacity for the bicycle mode.

Underpasses or other grade separations are not included here - they are in (10) below.

The bicycle system plan (Section 6.2) has identified an extensive program of projects needed to complete the primary and secondary corridors. Only a portion of the costs associated with these projects have been measured. As cost estimates for the all of the projects in the complete program are developed, the amount of this line item in table 8-2 will increase.

(7) Greenways

All new multi-use paths (including those using riparian corridors) are covered here. The category includes about 15 miles of greenways included in the Greenways Master Plan and another 10 miles of anticipated future need.

(8) Pedestrian Facilities

This category includes construction of missing links and projects to complete a continuous sidewalk system. The City conducted an inventory of sidewalks in 1993. About 100 miles of missing sidewalks and connections were identified.

(9) Streetscape and Subcommunity Improvements

Included here are transportation elements of the University Hill Sketch Plan, the North Boulder Subcommunity Plan and the Downtown Streetscape Plan, as well as Community Improvement Investment Fund projects.

(10) Grade Separations

Underpasses and overhead structures needed to provide safe and convenient crossings of major arterials for pedestrians and bicyclists are included in this category.

This includes grade separations identified in the 1989 TMP as well as additional needs identified at critical locations where pedestrian/bike and traffic conflicts cannot be resolved at grade.

(11) Neighborhood Traffic Mitigation

This category represents local street projects in the Neighborhood Traffic Mitigation Program. The needs estimate shown in table 8-2 is based on an annual program of \$900,000 in the years 1996 to 1999, and \$450,000 annually thereafter.

(12) Noise Abatement

Projects in this category include berms and walls along arterial and collector streets installed to mitigate the impact of traffic noise on adjacent land uses. Included are projects for Foothills Parkway, 28th Street and Broadway.

(13) New Streets, Through-Lanes and Interchanges

This is the category for increases in roadway capacity including new roads on new alignment, new through-lanes on existing streets (more than 300 feet in length) and new interchanges. Not included here are turn lanes, acceleration /deceleration lanes, intersection modifications, reconstruction or repair projects on existing streets (which are included in category 5 above), or bicycle and pedestrian improvements.

This line in table 8-2 below contains no projects. This is due primarily to the adoption of Scenario D as the planning base. Projects which have at one time or another been part of Boulder's transportation plan, which are no longer listed here, include \$94.8 million for such projects as the Foothills Interchanges, the Table Mesa Drive Boulevard project and the Pearl Parkway Extension.

(14) Expanded Transit Service and New Transit Facilities

This category includes improvements in transit service (e.g., increased service on existing routes and new routes) and new transit facilities (e.g., stops, shelters and transit centers). Routine maintenance and repair of transit shelters and routine recapitalization of the existing transit fleet is not included.

Although the current primary transit provider in Boulder is RTD, this Plan makes no assumptions about which agency will bear which costs nor about what service provider will be involved. It is probable these needs will be met in a variety of ways.

The initial analysis of needs in this category

was developed in 1994 in connection with the transit sketch plan. That initial analysis has been revised to show a gradually phased implementation of transit service increases as described in Section 6.3. In the meantime, the City would pursue incremental advances. The HOP is included here.

Table 8.1 shows how the needs developed in these categories relate to the functional definitions introduced in Chapter 6. Many projects fall in more than one category - both on the horizontal and the vertical dimensions in this table. Few projects would fit in just one box. However, checkmarks indicate the primary functional assignment for the needs categories.

8.4 Program Functional Categories

table 8-1. needs assignment to functional category

	system preservation	travel safety	functional efficiency	functional capacity	quality of life
(1) routine street maintenance and repair	✓	✓			
(2) Bikeways, Greenways Capital Maintenance	✓	✓			
(3) Pedestrian Facility Capital Maintenance	✓	✓			
(4) Street-Related Capital Maintenance	✓	✓			
(5) Street Construction - Existing Alignment		✓	✓		
(6) Bicycle Lanes and Bikeways				✓	
(7) Greenways				✓	
(8) Pedestrian Facilities				✓	
(9) Streetscape and Subcommunity Impr.					✓
(10) Grade Separations			✓	✓	
(11) Neighborhood Traffic Mitigation		✓			✓
(12) Noise Abatement					✓
(13) New Streets, Thru-Lanes and Interchanges				✓	
(14) Expanded Transit Service and Facilities				✓	

8.5 Capital and Program Needs

Boulder faces \$600 million in needed capital repairs, facility improvements and program expansions over the next 25 years. Cost estimates were derived as follows:

- Repair and rehabilitation costs were based on life-cycle analysis measuring the rate at which infrastructure wears out and annualizing the expenditure.
- Functional efficiency, functional capacity and quality of life costs were estimated

using either specific project costs or unit costs for the quantity of forecast work.

Costs are stated in 1994 dollars using local unit costs. Effects of inflation are not included since to do so would require knowing in which year investments would be made. In addition to the needs described in Section 8.4 are the needs associated with providing routine maintenance (e.g., snow removal), planning, engineering and project management. These costs are shown at the bottom of table 8-2. Multimodal corridor infrastructure improvements from table 7-1 in chapter 7 are referenced in a separate column.

table 8-2. summary of 25-year needs by functional category		
<i>Category</i> (\$ in millions)	<i>(Amount from Table 7-1)</i>	25-Year Needs (1996 - 2020)
System Preservation, Travel Safety		
Routine Street Maintenance & Repair	\$0.0	\$21.7
Bikeways& Greenways Capital Maintenance	\$0.0	\$2.6
Pedestrian Facility Capital Maintenance	\$0.0	\$39.7
Neighborhood Traffic Mitigation	\$0.0	\$13.5
Street-Related Capital Maintenance	\$0.0	\$107.5
Sub-Total	\$0.0	\$185.0
Functional Efficiency, Functional Capacity, Quality of Life		
Street Construction - Existing Alignment	\$23.1	\$42.5
Bicycle Lanes and Bikeways	\$9.4	\$30.4
Greenways	\$2.7	\$16.9
Pedestrian Facilities	\$1.5	\$27.2
Streetscape and Subcommunity Improvements	\$0.0	\$31.8
Grade Separations	\$0.0	\$14.5
Noise Abatement	\$0.0	\$4.1
New Streets, Through-Lanes, & Interchanges	\$0.0	\$0.0
Expanded Transit Service & New Facilities	\$11.9	\$252.0
Sub-Total	\$48.6	\$419.4
FORECAST CAPITAL AND PROGRAM NEEDS	\$48.6	\$604.4
Forecast Capital and Program Needs		\$604.4
Routine Operations, Capital and Maintenance in Budget		\$485.4
TOTAL: CAPITAL, PROGRAM AND OPERATIONS NEEDS		\$1,089.8

8.6 Funding Overview

The City channels transportation funding to operations and to projects through two funds:

- the Transportation Fund; and,
- the Transportation Excise Tax Fund.

The Transportation Fund provides moneys for operational expenditures as well as for capital projects. The 1989 TMP set the policy that the Transportation Fund would be used for projects needed to improve the existing system.

Projects needed to accommodate community growth were to be funded from the Transportation Excise Tax (TET) Fund. The TET fund, described in more detail below, receives tax payments from developers based on the allocated costs of growth-related transportation needs. (As noted in Section 8.2, this approach must now be reevaluated.)

8.7 Forecasts-Transportation Fund

The Transportation Fund receives revenues from sales taxes and other local taxes as well as from cost sharing (mainly federal) in local projects.

This revenue forecast is conservative. Sales tax represents over 70% of revenues to the Fund. These are projected to increase about 5% annually. Most other revenues to the Fund are projected to grow 1% annually. The forecast for the next six years is consistent with the approved 1996 City of Boulder budget.

The Transportation Fund is the operational base for the City's transportation programs.

Major operational categories include:

- Transportation operations - traffic engineering, development review, neighborhood rehabilitation programs, street lighting, signs and signals and transportation system management.
- Street rehabilitation and overlay, street work including medians.
- Alternative transportation - GO Boulder, including transit planning, marketing, vanpool, the HOP, the congestion relief project and related programs.
- Street Maintenance - patching, bikeway and median maintenance, street sweeping, snow and ice control, major repair, chip and seal program.
- Transportation administration - division administration, finance and analysis, network support.
- Other programs - storm sewer maintenance, GIS, technical support, development review, and residential parking.

In addition, the Transportation Fund pays an allocated share of the costs of overall City administration and overhead.

Local revenues into the fund by 2020 are expected to total \$678 million, as shown in table 8-4.

The 1989 TMP assumed significant participation by the state and federal governments in local projects. It now appears unlikely that new federal or state funding for local transportation projects (beyond the \$2 million programmed) will be available. This is due to a more conservative direction by Congress coupled with continued pressure on state and federal budgets.

The City of Boulder has had success bringing federal funds to transit and bikeways projects in recent years. However, these programs are under review and will likely be reduced. In this TMP Update, the City is making the conservative assumption that no additional federal or state participation beyond the \$2 million already under contract will be available to meet the needs shown in table 8-2.

The TET revenues are forecasted based on current residential growth limitations and on the new allocations for commercial/industrial growth. Excise taxes are predicted to decrease by 5% annually through the year 2000 and then level out. In 2009 excise taxes are predicted to begin another 5% downward trend through 2020.

The current forecast is summarized in table 8-3 below. Based on this data, about \$19.1 million would be available over the next 25 years for transportation system capacity expansion.

This forecast will be revised substantially over the next year. The revision will reflect both the new commercial/industrial growth limits ordinance and the results of an excise tax study to be completed during 1996. This study will determine a new basis for allocation of costs to "growth" and will set new excise tax rates to be applied to development.

This TMP utilizes the Excise Tax forecast shown in table 8-3.

8.8 Revenue Forecasts -TET Fund

Until recently the City had been forecasting it would receive about \$900,000 annually from developer-paid transportation excise taxes until around the year 2000 at which point income from this source would begin to drop. By the year 2020, about a half-million dollars would come into the fund annually.

table 8-3. 25-year revenues - transportation excise tax fund	
forecast: 1996 - 2020 (\$ in millions)	25-Year Total
Forecast Revenues (incl. fund balances)	\$19.1
Forecast Federal/State Funding	\$0.0
Funding Available for Operations, Maintenance, Capital & Programs	\$19.1

8.9 Program Priorities

As table 8-4 indicates, there is a substantial gap between the revenues the City of Boulder expects to have available for transportation and the transportation needs it anticipates.

This shortfall gives rise to some urgency in prioritizing funds. If funding, at least in the short term, is expected to be substantially inadequate, then the City must allocate what funds are available with care.

Pedestrian Facilities

The pedestrian system is the foundation of our transportation system. All modes depend on good sidewalks, crosswalks, separations and other pedestrian facilities for access. The pedestrian system is also the primary mode of travel for short trips within the City.

Finally, the quality of the pedestrian environment is a major factor influencing mode choice and a major factor in quality of life.

table 8-4. 25-year revenues and needs		
forecast: 1996 to 2001, and 1996 to 2020 <i>(\$ in millions)</i>	6-Year Total	25-Year Total
Revenues:		
Transportation Fund	\$107.6	\$678.0
Transportation Excise Tax Fund	\$5.2	\$19.1
Federal/State Participation	\$2.0	\$2.0
TOTAL REVENUES	\$114.8	\$699.1
Total Funds Available	\$114.8	\$699.1
Less: Operations, Routine Maintenance	\$82.1	\$551.7
Funds Available for Capital and Programs	\$32.7	\$147.4
Funds Available for Capital and Programs	\$32.7	\$147.4
Less: Needs	\$145.1	\$604.4
Remaining Needs	(\$112.4)	(\$457.0)
Reduced By: Needs Met Through Operating Budget	\$15.9	\$66.3
UNFUNDED TRANSPORTATION NEEDS	(\$96.5)	(\$390.7)

The City of Boulder makes decisions about funding priority through its Capital Improvement Program and the related budget process. The following strategies will guide the development of the CIP and budget.

Walkable neighborhoods and commercial areas are pleasant places. People who live and work in such places drive less. For this reason the City will continue its emphasis on maintenance and repair of existing pedestrian facilities and on the completion of the system, with the highest priority on sidewalks along arterial and collector streets.

In addition, over the next six years, the City will complete additional grade separations at:

- Baseline/Skunk Creek;
- Broadway/Bear Creek;
- Broadway/Skunk Creek; and,
- at least one other location.

The congestion management plan for the Foothills Parkway corridor calls for completion of the pedestrian network in the Foothills influence area (much of East Boulder) as an essential strategy in avoiding the cost of new interchanges on Foothills Parkway.

The City will seek state and federal assistance for completion of the sidewalk system in this area in connection with implementation of the congestion management plan.

Bicycle Facilities

The Bicycle System Plan, summarized in Chapter 6.2, describes a comprehensive system of primary and secondary corridors along with destination access, signing, education and promotion as priorities for this mode. The City will make a substantial financial commitment to system completion.

Over the next six years, the City will invest \$4.8 million in new bicycle lanes and bikeways. Another \$1.8 in Transportation Fund moneys will be invested in extension of Greenways.

Transit System

The transit policy plan (Section 6.3) describes a program of gradual improvements in transit service in Boulder over the next 25 years.

Key strategies identified in the plan include:

- developing local trunk (high frequency) service in a limited number of key corridors, introducing timed transfers, and implementing an expanded transit information system;

- improving transit access through a variety of capital improvements including neighborhood transit centers;
- improving regional service, especially between Boulder and its sister cities in Boulder County; and,
- increasing service in the US 36 corridor between Boulder and Denver with emphasis on the commute into Boulder.

Because major increases in funding for public transit are not anticipated in the near term, the City will actively seek ways to implement this plan through incremental improvements in these categories.

The City will build on the success of programs like the HOP by determining what has made them successful and by determining public reaction and response to service improvements and adjustments. The City will then apply what is learned to make further incremental improvements in service.

The City will look for opportunities to secure funding for continuation of the HOP. The City has committed local funding for the HOP through the end of 1996. The City will also seek a means of introducing one similar, targeted transit service in a North-South Corridor (the "Skip") and another in an East-West Corridor (the "Jump").

Some of the strategies the City will investigate for continuation of the HOP are:

- Funding the HOP service from the existing Transportation Fund. This would require reductions in other programs.
- Funding the HOP service through a sales tax increase.
- Funding HOP service with contributions from the beneficiaries of the service.

(continued on next page)

- Funding the HOP through parking management. This would entail increasing public parking rates and utilizing those revenues for the HOP.

Some additional strategies the City will investigate both for continuation of the HOP and for initiation of a Skip and Jump are:

- reassigning funding currently devoted to inefficient or duplicative service through cooperative service planning with RTD;
- achieving expansion of Eco Pass participation by brokering new pass arrangements and negotiating service increases from RTD to serve the resulting expanded market;
- continued coordination with the University of Colorado; and,
- exploring opportunities to bring the efficiency and entrepreneurial capabilities of the private sector to bear on local and regional transit service.

Motor Vehicle System

The City will not make major increases in roadway capacity for motor vehicles over the next 25 years. Some of the major road and street projects contained in the 1989 TMP are now substantially revised and reduced in scope.

These include:

- the Foothills Parkway interchanges, now replaced by a corridor congestion management plan emphasizing demand management and non-auto modes;
- Pearl Parkway extension; now replaced by a more modest 2-lane connection with on-street bike lanes, a multi-use path in the former extension alignment, and accommodation for direct transit service between Gunbarrel and East Boulder; and,

- Table Mesa Drive Boulevard; now replaced by a more modest all-modes improvement within existing public right-of-way, including on-street bike lanes and pedestrian and transit improvements.

This approach will be made possible by holding daily traffic at today's levels through vehicle trip reduction and demand management strategies (see Section 6.4).

However, for this plan to work, the City must make targeted improvements in traffic flow throughout Boulder. As described in Section 6.5, this requires particular attention to intersections where most congestion occurs.

The City will focus roadway investments on those streets which have been identified in Chapter 7 as multimodal corridors. Improvements to these roadways will increase efficiency and reduce conflicts for all modes.

A major policy direction of this TMP Update is to concentrate funding and resources on improving the efficiency of the City's intersections.

In most cases, it will be possible to improve intersections and adjacent roadways in a manner that benefits pedestrians, bicyclists and transit as well as auto drivers.

The City will not invest in new general purpose lanes, new alignment roadways or new interchanges (with the possible exception of Foothills/Arapahoe). This approach is consistent with federal policy (expressed in the 1991 Intermodal Surface Transportation Efficiency Act) and emerging state and regional policies discouraging investments that serve single-occupant vehicle travel.

These strategies represent a key shift in policy from the 1989 TMP and a fundamental shift in direction for the City's transportation programs.

8.10 25-Year Allocation Program

It will not be possible with revenues from existing sources to meet our local transportation needs between now and the year 2020.

However, the 25-year program shown in table 8-5 allocates the funding that is expected from today's revenue sources among the categories and compares these amounts with the needs to determine remaining unfunded needs.

Programs which will be left largely unfunded include:

- street reconstruction;
- street construction;
- new streets, lanes, interchanges; and,
- transit service expansion.

The street reconstruction and street construction programs are needed - for all modes, especially if a strategy of making efficient investments at intersections is to succeed.

table 8-5. 25-year allocation					
<i>(\$ in millions)</i>	Estimated 25-Year Needs	Need Met In Operating Base	Funds Available TF + TET	Remaining Needs Unfunded	% of Needs Unfunded
<i>category:</i>					
System Preservation, Travel Safety					
Routine Street Maintenance & Repair	\$21.7	\$18.7	\$3.0	\$0.0	0%
Bikeways& Greenways Capital Maintenance	\$2.6	\$0.0	\$2.6	\$0.0	0%
Pedestrian Facility Capital Maintenance	\$39.7	\$5.1	\$30.0	\$4.6	12%
Neighborhood Traffic Mitigation	\$13.5	\$0.0	\$13.5	\$0.0	0%
Street-Related Capital Maintenance	\$107.5	\$42.6	\$8.4	\$56.5	53%
Sub-Total	\$185.0	\$66.3	\$57.5	\$61.2	33%
Functional Efficiency, Functional Capacity, Quality of Life					
Street Construction - Existing Alignment	\$42.5	\$0.0	\$21.1	\$21.4	50%
Bicycle Lanes and Bikeways	\$30.4	\$0.0	\$20.0	\$10.4	34%
Greenways	\$16.9	\$0.0	\$7.5	\$9.4	56%
Pedestrian Facilities	\$27.2	\$0.0	\$20.0	\$7.2	26%
Streetscape and Subcommunity Improvements	\$31.8	\$0.0	\$2.5	\$29.3	92%
Grade Separations	\$14.5	\$0.0	\$14.0	\$0.5	3%
Noise Abatement	\$4.1	\$0.0	\$4.1	\$0.0	0%
New Streets, Through-Lanes, & Interchanges	\$0.0	\$0.0	\$0.0	\$0.0	0%
Expanded Transit Service & New Facilities	\$252.0	\$0.0	\$0.7	\$251.3	100%
Sub-Total	\$419.4	\$0.0	\$89.9	\$329.5	79%
TOTAL SYSTEM	\$604.4	\$66.3	\$147.4	\$390.7	65%

This table represents a "best allocation" of limited resources. Programs which will receive priority in this program are:

- routine maintenance;
- bicycle/pedestrian capital maintenance;
- new bicycle/pedestrian facilities; and,
- neighborhood traffic mitigation.

Some amount of transit service increases are also needed and opportunities will be sought to increase funding for them over time.

While this allocation program leaves important needs unfunded, it does make substantial investments in Boulder's transportation system and provides a base from which to work toward additional solutions.

The City will focus particular effort on the following high priority strategies:

- an exploration of the potential for demand management approaches to avoid capacity expenditures;
- completion of the pedestrian system throughout the City as soon as possible;
- completion of the bicycle primary corridor system as soon as possible;
- incremental expansion of transit services, building on successful experience;
- completion of the needed investments in multimodal corridors identified in Chapter 7.

8.11 Initial 6-Year Funded Program

A funded 6-year program consistent with these strategies is shown in table 8-6. While not ideal in terms of the needs left unresolved due to funding constraints, this allocation of limited resources will serve as a base from which to work.

A portion of the identified roadway needs will be met through routine operations expenditures in the transportation budget. These are shown in a separate column in table 8-6.

The “new streets” line represents about \$95 million in costs avoided based on the Scenario D assumption of progress toward the City’s traffic growth objectives.

table 8-6. initial 6-year funded program

(\$ in millions)	Estimated 6-Year Needs	Need Met In Operating Base	Funds Available TF + TET	Remaining Needs Unfunded	% of Needs Unfunded
<i>category:</i>					
System Preservation, Travel Safety					
Routine Street Maintenance & Repair	\$5.2	\$4.5	\$0.6	\$0.1	2%
Bikeways& Greenways Capital Maintenance	\$0.6	\$0.0	\$0.5	\$0.1	20%
Pedestrian Facility Capital Maintenance	\$9.5	\$1.2	\$5.4	\$2.9	31%
Neighborhood Traffic Mitigation	\$3.2	\$0.0	\$4.5	(\$1.3)	-39%
Street-Related Capital Maintenance	\$25.8	\$10.2	\$1.2	\$14.4	56%
Sub-Total	\$44.4	\$15.9	\$12.2	\$16.3	37%
Functional Efficiency, Functional Capacity, Quality of Life					
Street Construction - Existing Alignment	\$10.2	\$0.0	\$5.8	\$4.4	43%
Bicycle Lanes and Bikeways	\$7.3	\$0.0	\$4.8	\$2.5	34%
Greenways	\$4.1	\$0.0	\$1.8	\$2.3	56%
Pedestrian Facilities	\$6.5	\$0.0	\$3.5	\$3.0	46%
Streetscape and Subcommunity Improvements	\$7.6	\$0.0	\$2.1	\$5.5	72%
Grade Separations	\$3.5	\$0.0	\$1.7	\$1.8	51%
Noise Abatement	\$1.0	\$0.0	\$0.0	\$1.0	100%
New Streets, Through-Lanes, & Interchanges	\$0.0	\$0.0	\$0.0	\$0.0	0%
Expanded Transit Service & New Facilities	\$60.5	\$0.0	\$0.7	\$59.8	99%
Sub-Total	\$100.7	\$0.0	\$20.4	\$80.2	80%
TOTAL SYSTEM	\$145.1	\$15.9	\$32.6	\$96.5	67%

Priority in this six-year program is placed on maintaining existing streets; expanding the bicycle and pedestrian systems; and improving efficiency of the street network.

HOP funding is shown only for 1996, leaving this important service unfunded after that. The issue of deferred maintenance on bikeways, greenways and pedestrian facilities is unaddressed by this program.

Table 8-7 evaluates the allocation of funds between functional categories (see section 6.5) both for the past five years and for the new six year funded program.

table 8-7. comparison of funding priorities

comparison of program allocation		
	1989 -1994	1996 - 2001
system preservation	33%	32%
travel safety	29%	42%
functional efficiency	17%	8%
functional capacity	14%	14% *
quality of life	7%	4%

* bike, ped and transit only

The following is a partial list of the highest priority work items that will be undertaken by the Transportation Department (with review and assistance from other departments as noted) as a result of adoption of the TMP Update.

These tasks should be accomplished in a timely manner and will impact the work programs for a number of departments. Thus they are subject to the priorities developed and reviewed in the annual work program and budget development process.

Work tasks identified from the TMP Update include:

- prior to the next budget cycle, review all maintenance and operations activities in the Transportation Department to evaluate how they contribute to the objectives of the TMP Update;
- working in cooperation with the Police Department, develop measures and standards to evaluate the enhanced safety and enforcement program included in the action agenda;
- develop a standardized method for evaluating the cost-effectiveness of strategies to reduce vehicle miles of travel;
- review the City Code, Land Use Regulations, and the Design Criteria for consistency with the policies of the TMP Update -- in particular, design requirements to ensure connectivity of all new development with alternative mode systems, the provision of bicycle parking, and the inclusion of VMT reduction strategies in the development review process are priorities in this review;
- identify a short list of high-priority missing links in the sidewalk system, and program funding to complete these links;

8.12 Short Term Work Tasks

A two-year Action Initiative in the Executive Summary at the front of the TMP Update defines the initial implementation efforts of the TMP Update. However, a number of additional work tasks are needed to make the TMP Update real by integrating its policy directions with the daily workings of the City.

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- develop a list of low cost and easily implemented pedestrian safety improvements;
 - inventory the existing use paths within the City and identify those that provide needed connectivity or continuity;
 - review and revise the “warrants” used to guide decisions on placing various pedestrian crossing treatments and for signal placement;
 - review and revise the City Code to clearly define the rights and responsibilities of bikes, pedestrians and autos in sharing the road and sidewalk systems;
 - work with the judicial system to ensure that traffic fines reflect the potential for injury and damage associated with a particular violation;
 - develop standard guidelines for intersection treatments relative to bicycle facilities;
 - work in cooperation with the Planning Department and the Planning Board to define development policies and standards relative to neighborhood transit centers, intermodal facilities and multimodal corridors;
 - develop a prioritized list of needed pedestrian crossing improvements and apply the pedestrian crossing treatments described in chapter 6.1 to these locations; and,
 - develop a prioritized list of needed bicycle crossing improvements and apply the intersection treatment guidelines described in chapter 6.2 to these locations.